



## Training – Start up procedures

### **Vended – Logi – Logi Pro controls**

#### **Reference manuals:**

- (1) Operating Instructions Manual for Vended washers Cod. 598144 Rev. 11/0717 or higher X-Series control with Profit Plus
  
- (2) Operating Instructions Manual for Logi control washers Cod. 523340 Rev. 11/1218 or higher section 1-6 Logi Control
  
- (3) Operating Instructions Manual for Logi Pro control washers Cod. 523340 Rev. 11/1218 or higher section 7-8 Logi Pro Control

# Safety Instruction



## IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** To reduce the risk of fire, electric shock or injury to persons when using the machine, follow basic precautions, including the following:

1. **READ** all instructions before using the machine, and **KEEP** them in a prominent location for customer use.
2. Do not wash articles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, dry cleaning solvents, and other flammable or explosive substances as they **GIVE OFF VAPOURS** that could ignite or explode.
3. **DO NOT ADD** gasoline, dry-cleaning solvents, or other flammable or explosive substances to the wash water. These substances give off vapours that could ignite or explode.
4. Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for two weeks or more. **HYDROGEN GAS IS EXPLOSIVE**. If the hot water system has not been used for such a period, before using the washing machine, turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. As the gas is flammable, do not smoke or use an open flame during this time.
5. Do not allow children to play on or in the washer. **CLOSE SUPERVISION** of children is necessary when the washer is used near children.
6. Before the washer is removed from service or discarded, **REMOVE** the door.
7. **DO NOT TRY TO OPEN THE WASHER'S DOOR** if the drum is moving.
8. Do not install or store the washer where it will be exposed to the **WEATHER**.
9. **DO NOT TAMPER** with controls.
10. **DO NOT REPAIR OR REPLACE** any part of the washer or attempt any servicing, unless this is specifically recommended in the user instructions or in published user-repair instructions that you understand and have the skills to carry out.
11. **DO NOT REMOVE** any safety device **OR MODIFY OR MANIPULATE** any component or part of the machine. **DO NOT INSTALL** any extra elements inside the machine.
12. Any part of the machine that is replaced may affect its operation and the user's safety. For this reason, **USE ONLY THE MANUFACTURER'S ORIGINAL SPARE PARTS**. Failure to comply with this warning can cause serious accidents, malfunctions and the loss of the machine's guarantee and certifications.
13. Failure to comply with or observe the legislation and regulations covering health, safety and prevention of risks in the workplace applicable in the country where the machine has been installed, or actions contrary to common sense, **MAY CAUSE** personal injury or even death to the user.
14. The machine should only be used for those purposes established by the manufacturer and following the instructions for use set out in the instruction manuals. Any use not specified in the manuals may lead to additional risks. Pay special attention to information headed **DANGER, WARNING** and **PRECAUTION**.
15. The room where the machine is located **MUST** comply with the environmental conditions (air venting, temperature, humidity, etc.) specified in the technical specifications table. **NEVER INSTALL THE MACHINE IN ENVIRONMENTS** where it will be splashed with water or where there is a very high level of humidity in the atmosphere.
16. Clearly mark out danger areas and **PREVENT** public access to them when the machine is operating. Do not expose yourself to drainage areas or to vapour, condensation, combustion gas or ventilation outlets.
17. All machines working at temperatures present a fire risk. Take **EXTREME** care: **CLEAN** the machine of inflammable materials: lint, fluff, soot, etc. on a regular basis. **KEEP** the environment free of combustible materials and **PLACE** suitable extinguishers near the machine in easily accessible places.

## Safety Instructions

18. All installations required for the proper operation of the machine **MUST** be carried out by a duly accredited Registered Installation Contractors (see Note 3), in compliance with the legal regulations applicable in the country of use.
19. The machine **MUST** be commissioned by the Authorised Technical Service in the presence of the Customer Technical Service (see Notes 2 and 4) or a responsible person appointed by the customer.
20. This machine **MUST BE USED** by personnel who are properly trained in how to use it (see Note 1).
21. **NEVER START THE MACHINE, OR USE IT, IF THE FOLLOWING ARE ABSENT, INCORRECTLY POSITIONED OR MALFUNCTIONING:**
  - COVERS (GUARDS) AND PROTECTIVE DEVICES
  - SAFETY DEVICES
  - CONTROL ELEMENTS
22. **DO NOT USE** the machine if you notice any abnormal noise or smell or if you suspect that the machine is faulty or defective.
23. The inspections required by the regulations applicable to the country where the machine is being used must be carried out. It is advisable to request an overall, detailed service of the machine by the Authorised Technical Service every year (see Note 2).

24.  **WARNING!!**  
**INSPECTION, MAINTENANCE OR REPAIR OPERATIONS**

Before carrying out any action on the machine:

- Close and mechanically lock the manual fluid supply valves.
- Check that the bath has **COMPLETELY** drained, that no part of the machine is at a high temperature and that no circuits or containers are under pressure.
- Check that all the machine's moving parts are halted or in their rest position. Securely fix all the machine's moving parts that could cause an accident.

To reduce the risk of electric shock:

- **COMPLETELY** disconnect the machine from the mains power supply and take steps to prevent accidental reconnection. **TURNING OFF THE ON SWITCH OR PRESSING THE STOP KEY IS NOT ENOUGH.**
- Disconnect the electrical connection of any circuit external to the machine; for example external dosing equipment, central vending units, linen feeders or folders, etc. The electrical connection for these circuits is independent of the machine's electrical connection.
- To prevent the risk of electrical discharge caused by residual voltage, wait at least five minutes before removing any guard or cover from the machine.

**Failure to follow these warnings may cause a serious accident.**

25. **CONTACT** the Installation Contractors or the Authorised Technical Service (see Notes 3 and 2) in the event of any doubt, anomaly or problem.
26. It is advisable to copy and enlarge the **SAFETY INSTRUCTIONS** and place them in a visible place in the laundry.
27. **THE MANUFACTURER ACCEPTS NO RESPONSIBILITY IF THESE SAFETY INSTRUCTIONS AND ALL THE INFORMATION IN THE CORRESPONDING MANUALS ARE NOT FOLLOWED.**

**SAVE THESE INSTRUCTIONS.**

# Safety Instructions

## SYMBOLS USED IN MACHINE LABELLING

	<b>Electrical risk</b> Protective guard for elements carrying an electric current.		<b>High temperature risk</b> Handle with caution. Use adequate protection.
	<b>Mechanical risk</b> Protective guard for moving parts.		<b>Risk of inhaling harmful or irritant vapours</b> Keep the doors/covers closed. Use adequate protection.
	<b>Flame risk (only on some machines)</b> Protective guard for flame.		<b>Risk of falling</b> Use proper access and safety methods.
	<b>Access prohibited</b>		<b>Refer to instruction manual/booklet</b>

## SYMBOLS USED IN THIS MANUAL

	Symbol used to highlight a possible HAZARD, WARNING or NOTE.		This symbol is used to emphasise a particular explanation.
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## TRANSLATION OF THE ORIGINAL MANUAL

### NOTES:

- (1) **Trained personnel** refers to those who have read and understood the Instruction Manual, who have been trained by the Authorised Technical Service or by a representative of the customer present at the start-up who is familiar with the operation of the machine and is authorised to use it.
- (2) **Authorised Technical Service (ATS)** is one that has been recognised under contract and properly trained by the manufacturer.
- (3) **Registered Installation Contractors** are those officially approved by the government of the country the machine is to be installed.
- (4) **Customer Technical Service (CTS)** is one that has been authorised by the customer and which has sufficient basic technical knowledge to correctly interpret and carry out the actions attributed to it in this manual. The manufacturer strongly recommends that the customer should have its own technical service, particularly in laundries with large-scale machinery installations.

# Safety Instructions

## IMPORTANT INSTRUCTIONS FOR USE AND PRESERVATION

1. **INTENDED USE OF THE MACHINE AND INAPPROPRIATE USE.** This machine is designed and intended solely for processing fabrics washed in a water bath or that have been previously treated in these conditions. Any use other than this is contraindicated without written authorisation from the manufacturer.
2. Maximum output, performance, reliability and durability are achieved when the machine is installed, used and maintained correctly, and if a comprehensive and detailed service is carried out annually by the Authorised Technical Service.
3. The machine's **MATERIALS** that are in direct contact with the chemical products involved in treating the linen are detailed in the manual.
4. The user must consult the supplier of the chemical products **USED THROUGHOUT THE WHOLE LINEN TREATMENT PROCESS** regarding the risks associated with its products and their combination. It must be confirmed that the products are not flammable, **ARE MUTUALLY COMPATIBLE**, and that they will not cause oxidation or deterioration of the machine or any injury to the people using them.  
It should be noted that, under certain conditions of use, hypochlorite (bleach) generates chlorine gas. Chlorine is a corrosive, oxidising substance which, at high concentrations and temperatures, damages stainless steel and elastomers.  
This same effect can also be caused by other strongly oxidising agents, including ozone.
5. **FOLLOW** the treatment recommendations for each fabric indicated by its manufacturer. **THE MANUFACTURER OF THE MACHINE** accepts no responsibility for damage caused by inappropriate treatment of a fabric.
6. Periodically **CLEAN** the outside of the machine to prevent damage to its metal parts. This will improve safety and extend its life. To clean the machine, use water and detergent. Rinse with a damp cloth and then dry off. To remove accumulated lint, use a suitable vacuum cleaner. **Water jet or pressurised steam cleaning is prohibited.**
7. **NEVER** use aggressive products to clean the machine or the premises. There are products on the market that give off highly corrosive vapours.
8. If the machine is left idle for long periods of time, it must be thoroughly **PROTECTED** from humidity and temperature variations.
9. Faults arising from improper machine operation may **VOID THE WARRANTY.**
10. When asking for information on your machine, **MENTION** the model and serial number. This information can be found on the specification nameplate incorporated into the machine.

With every machine, the manufacturer provides all the necessary technical information and documents required for its use. **KEEP IT IN GOOD CONDITION.**

## Introduction and Use (Vended control & profit plus)

This guide is intended to inform owner/operator of operation and basic equipment set up for vended controlled washing machines with extra options.

**Vended X-series control for EH20, 030, 040, 060, 080 and 090 soft mount units plus REM025, RMG033, 040, 055 and 070 rigid mount units.**

### 4.1.2. Machines with PROFIT PLUS CONTROL

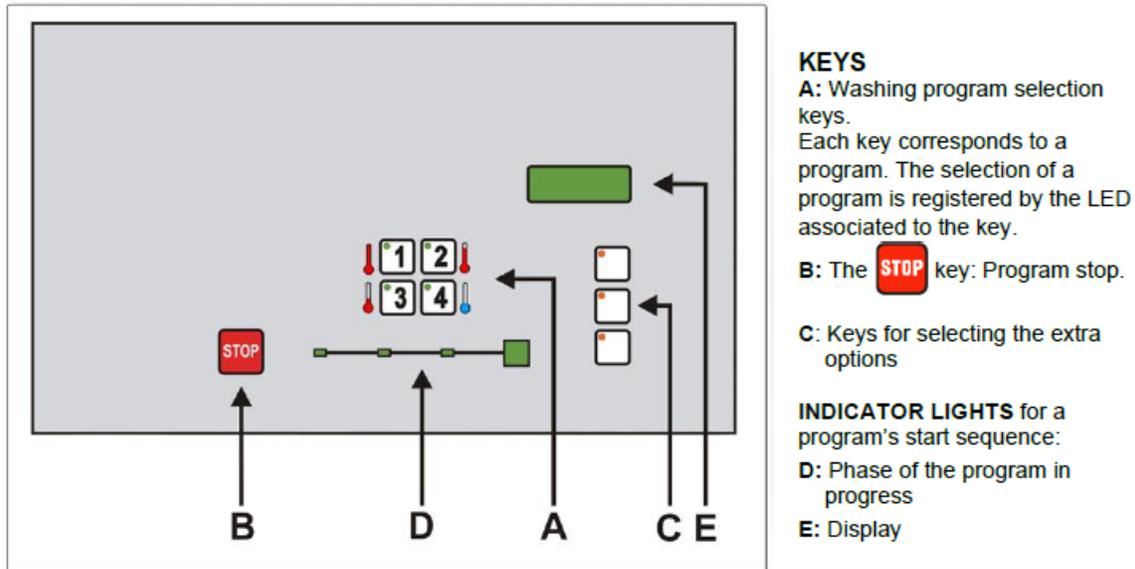


Fig. 4.2

It is important that the customer understand as much as possible during the training startup of the new equipment. Use the control panel above to explain key functions and display segments.

### Characteristics of the control

- Ease of use microprocessor control
- Ability of individual program modification
- Audit of program usage
- Temperature control achieved by hot and cold valve operation
- Diagnostic "TesT" feature for troubleshooting washer faults

This new control is unique in that it not only allows ease of use but that it has extended revenue options that can provide up to 30-40% additional income above standard vended washers. The extra options are: Extra wash time, Extra rinse phase and/or extra rinse time along with Extra extraction time.

We next want to show customer how to properly setup the washer vending information for both standard vend and extra options vending best suited for owner's location. These settings may vary depending on location. (Consult with owner)

## Access to Advanced use Mode. All models

With power on, open loading door. Press and hold down key 1 until the **COD** report shows on display then release. Next we enter the 4 digit security cod and display will show “**0000**”, enter the code a second time and display will show “**0000**”. Next the display will show “**Pro**”. You are now in the advanced menu.

The chart showing all menu’s located in this setup is next. The advanced use mode offers some menus, which allow the modification of program contents, the price management of programs and the modification of operation parameters.

Using the washer keypad numbers 2 & 4 you can move back and forth through the menu choices. Once menu is selected use number 1 to scroll through the menu and use numbers 2 & 4 to make changes.

The **ADVANCED USE MODE** offers some menus, which allow the modification of program contents, the price management of the programs, the modification of operating parameters, etc.

The **ADVANCED USE MODE** is made up of the menus defined in the following chart.

MENU	PURPOSE	CHAPTER /SECT.
<b>Pro</b>	Modification of the program contents	6
<b>dEmo</b>	Operation mode with program accelerator	7
<b>InFO</b>	Information menu	8
<b>Mod</b>	Modification of operation parameters	9
<b>NCod</b>	Modifying of the access code	10
<b>CASH</b>	Programming and/or modifying each program price	11.1; 11.2.3
<b>Hour</b>	Adjustment of the system time	11.2.1
<b>CALE</b>	Prices allocation according to hour band	11.2.2
<b>EoPt</b>	Options menu	12

For this training the chart provides an explanation of each menu but we will concentrate on the basic parameters for setting up washer for use. These menus are **CASH**, **EoPt** and **Mod**. For other menu options refer to the “**Operating Instructions Manual for Vended washers, Cod. 598144 Rev. 11/0717** or later.

### Cash (program vend price)

With display showing **Pro** use key number 2 and move to option indicated **CASH**. Press key number 1 to show **PR1** indicating program 1, press number 1 to show current price. To increase price, press number 2 to decrease price or press number 4 until desired price is showing. Next press number 1 to show **PR2** indicating program 2, press number 1 to show current price and use number 2 or 4 to make change. Continue with these steps until all four programs have been set. Next press Stop 1 time to return to main menu **CASH**

### EoPt (extra options set up and vend price.

On machines with extra options, the **EoPt** menu makes it possible to modify the parameters of these options. With display showing **CASH** use number 2 key to move to show **EoPt**,

The extra options are extra wash, extra rinse and extra spin. Each option can be selected independently from each other, once the washing program has been selected. In the **EoPt** menu each of the extra options can be turned off if desired.

In the case of extra wash, the user can choose between turning off and increasing time of wash phase 2.

In the case of extra rinse, the user can choose between increasing time of wash phase 2 and adding a new phase. Phase 2 and 3 must be active.

This same menu makes it possible to enter pricing for the selected options.

**Table summarising the modifiable parameters for the extra options:**

PARAMETER	MODIFICATION OF	OPTIONS		DEFAULT
<b>EUA</b>	Extra wash	0	Off	
		1	Increases the wash cycle time (Phase 2)	←
		2	Adds washing phase 1	
<b>Ut-x</b>	Extra washing time in minutes	1 ... 9	Time added to the washing phase (if EUA=1)	1
<b>8888</b>	Price of the extra wash	0000 9999		0000
<b>Eri</b>	Extra rinse	0	Off	
		1	Increases the rinse cycle time (Phase 3)	←
		2	Adds rinsing phase 5	
<b>rt-x</b>	Extra washing time in minutes	1 ... 9	Time added to the rinsing phase (if EUA=1)	1
<b>8888</b>	Price of extra rinse	0000 9999		0000
<b>EdS-x</b>	Extra spin	0	Off	
		1	It modifies the spinning time	←
		2	It modifies the spinning time and the spin speed at E6	
<b>St-x</b>	Extra spinning time in minutes	1 ... 3	Time added to the spinning (if EdS=1)	3
<b>8888</b>	Price of extra spin	0000 9999		0000

← Indicates default option according to settings.

The chart shows each option, option selections and the option default status. Under **EUA** we see under options 0 – Off, 1 – Increases the wash time in Phase 2 and 2 – Adds washing phase. The option 2 adding wash phase is not allowed in USA/Canada models, only adding of time. The next parameter **Ut-x** (extra washing time in minutes) allows for selection of 1 – 9 minutes with default at 1 minute.

**Note:**

**Based on what we see in the open markets these times are normally set at a minimum of 2 minutes with a cost of \$0.25 per minute. In the Eri (extra rinse) when option 2 is selected (adds rinsing phase 5) the cost needs to increase due to the added water along with time.**

With display showing **EoPt** press number 1 and display will show **EUA 1**, indicating extra time selection, if you want to turn off this feature press number 2 – 4 to change. If extra time is what you want press number 1 and display will show **UT-x 1** indicating 1 minute of time. To increase time press number 2 until desired time shows. Press number 1 and display will show **00.00** indicating vend price. Press number 2 and price will increase by **0.25** with each press of key, to lower vend press number 4 key. Once vend is satisfied press number 1 and display will go to next option **Eri 1** indicating extra rinse time.

Continue sequence indicated above until all options are selected and priced. To exit back to main menu press stop and display will show **EoPt**. Press number 2 until display shows **Nod**.

### Mod (Nod) Modification of operational parameters

The **Mod** menu allows the user to modify the operation parameters of all programs, in this menu any change made affects all 4 programs as a group. Below we see the summary table of all changeable parameters, at this time we only want to change the **SP-0** setting.

Summary table of the changeable parameters:

PARAMETER	MODIFICATION OF	OPTIONS		CE	USA
C / F	Temperature unit	C	Temperature displayed in degrees Celsius	←	
		F	Temperature displayed in degrees Fahrenheit		←
dc	Cleaning the dispenser	dc-0	Dispenser cleaning <b>NO</b> activated	←	
		dc-1	Dispenser cleaning <b>YES</b> activated		←
Ed	External dosing	Ed-0	Units without external dosing	←	←
		Ed-1	Units with external dosing		
bt	Beep time	bt10	Beep time when machine restarts		
dp	Program by default	1 ... 4	Selected program by default	3	3
UCM	Locking the coin meter box	UCM-0	Coins/tokens accepted at the beginning of the cycle regardless of the status of the door and the program selected.	←	
		UCM-1	Coins/tokens accepted at the beginning of the cycle only after the door is closed and the program selected.		←
PSH	Order for cycle start	PSH-0	Cycle start by inserting coins	←	←
		PSH-1	Cycle start by inserting coins and key for the program selected		
SP	Levels of suds prevention (EH020 and REM025 models only)	SP-0	Without suds prevention	←	←
		SP-1	First level of suds prevention		
		SP-2	Second level of suds prevention		←
		SP-3	Third level of suds prevention		
Hr	Program price according to hour band	Hr-0	Option not available	←	←
		Hr-1	Option available		
dSP	Temperature display	dSP0	No temperature value displayed		
		dSP1	Temperature value displayed	←	←
Id	Network identifier	Id-0	Disabled communication	←	←
		Id-1..99	Enabled communication		

← Indicates default option according to settings.

As we can see there are several options in this menu screen. The one we want to address is **SP 0** showing in chart as **Levels of suds prevention**. What it doesn't tell us is that it is also the setting for **Energy Star** programs. These default programs use lower water levels, lower water temperatures and shorter cycle times.

If we want the washer to work at a standard level of customer satisfaction, we need to change this setting from SP-0 to SP-1. This will increase the main wash levels, temperature and times of cycles.

**Note:**

**In order to understand the change of cycles from SP-0 to SP-1 look in section 6.2.2 Program contents. USA configuration, all models. SP-0 and compare to EH020 and REM025 models. SP-1, SP-2, SP-3. Other EH and RMG models SP-1.**

To change setting **SP-0 to SP-1**, washer display shows **Nod**, press number 1 until display shows **SP-0**, press number 2 and change to **SP-1**. Press number 1 and you will hear a long beep then display will show **Id-0**.

**Note: The Id setting is the connection setting for Card systems that allows for the card provider to communicate directly with washer control through an interface set up. All washers connected to card systems using this interface requires the Id-0 setting to be changed to Id-1.**

**Activation of card system interface;**

With display showing **Id-0** press number 2 and display will show **Id-1** indicating activation. Press number 1 to confirm change and display will show **Nod**.

At this time we have completed all standard washer settings and units are now ready for customer use.

To exit the **COD** settings press the stop key and display will show **door** indicating door is open or **Sel** indicating door is closed and that washer is in ready mode.

**Machine Operation**

Main reports that appear on washer display are shown in chart;

REPORT	MEANING
<b>door</b>	Washer with door open. Machine ready to start a program
<b>SEL</b>	Indicates program selection
<b>Pr-*</b>	Program selected
<b>C** / F***</b>	Bath temperature (machines with heating)
<b>8888</b>	Program price Minutes remaining in the program
<b>End</b>	End of program. Door unlocked. Machine in idle mode

**Loading the washing machine**

Open the loading door and load the machine. Washer load recommendations according to the type of linen to be washed;

- a. Cotton fabrics: nominal load of approximate machine capacity
- b. Synthetic fabrics: between 80 & 90% of nominal load

- c. Delicate fabrics: between 50 & 60% of nominal load
- d. Mixed fabrics: between 80 & 90% of nominal load

Do not overload the machine; the door must be able to close easily. Overloading the machine leads to excessive strain on machine operation.

### Using the dispenser

 **WASHING MACHINES WITHOUT PRE-WASH PHASE**  
 To avoid clogging the dispenser, products are prevented from being added in the unused compartments (Fig. 4.5 and 4.6). It is important to warn the operator about the correct use of the dispenser.

Fill the compartments with the corresponding products, according to these symbols.

	Powdered detergent. Normally used in the wash phase	<b>d2</b>
	Liquid product. Normally used for bleaching (chloride, bleach, etc.)	<b>d3</b>
	Liquid product. Normally used as a softener/neutraliser	<b>d4</b>

In fig. 4.5 we see the front loading dispenser system used only in EH020 models with a pump drain system. In fig. 4.6 we show the top mounted dispenser system on all other EH, REM and RMG models with exception of EH090 washers.

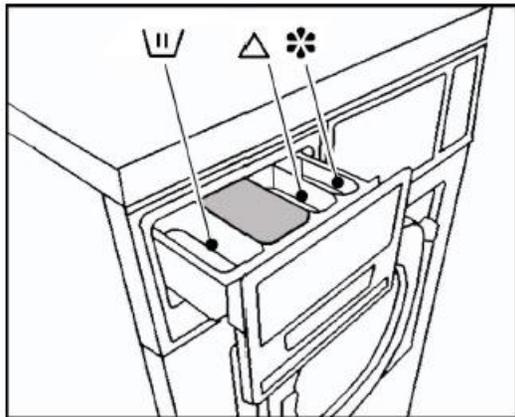


Fig.4.5

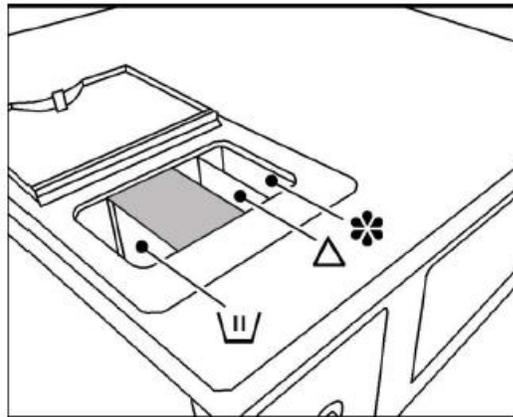


Fig.4.6

### Starting a program, machines with Profit plus Control (EoPt)

- Close loading door, **SEL** report on display.
- Place detergent, bleach and softener products in the dispenser
- Select the desired program by pressing corresponding number on key pad
- The LED light will show next to program selected and vend price will flash
- Select extra options you want by pressing corresponding key of feature, for each selection the vend price will be added to program selection indicating total vend for selected options
- Insert correct number of coins required to start washer or insert card. Once all coins or card has been inserted, the selected program will start.

Sequence of starting a program is the same for all vended controls with the Profit Plus control. Start signal activated by satisfying vend price, signal is sent to door lock to start locking process and to drain valve causing valve to close.

**Door lock normally open:** after the lock has received a start signal, a 30 second delay time is started, during this time the drum rotation and water inlet operate at short impulses and door remains unlocked. Anytime during this period, the operator can open the door without losing vend. At the end of the 30 seconds the door will lock and the cycle time starts.

**Door lock normally closed;** after lock has received a start signal the door lock starts a timed count down of 30 seconds during which time the door can be opened and closed without losing the vend. At the end of the 30 seconds the door will lock, if handle is in latched position, and cycle time starts. If door handle is left in open position the washer will go into a door alarm mode, move handle to latched position and cycle will start.

**Note: All microprocessor controls will not allow door to be opened if washer still has water in drum. Level control needs to read empty prior to door unlocking.**

#### **Unbalance switch control – EH soft mount models only**

After starting the spin (extract), the inner tub moves during the distribution of linen. At any time the inner drum moves in excess and the balance switch is activated, the drum will stop, rotate back and forth to redistribute the linen and retry the extraction.

If there's still unbalance and the balance switch is activated a third time the washer will end cycle and after the door unlocks, the control will show **End/bAL**.

#### **Unbalance impedance – All VFD drive models**

All washers that use inverter drive systems (VFD) have what we call an impedance unbalance. This is different than a switch control in that when the micro receives a high current signal from the VFD, it will hold the power output to motor at a constant level until the micro signals that current levels are normal.

At that time the increase of speed is resumed. If the current levels remain out of sequence then the washer will finish the time and end cycle. This means that the washer could complete cycle at less than normal spin speed.

This anomaly is caused by an inconsistent linen load;

Example would be a heavy quilt and all other items sheets, when items separate in drum, it takes more motor power to lift the quilt than the sheets, causing a motor imbalance.

#### **Water valves**

We list water valves for sole purpose of explaining the operation when filling. In the CGI equipment when filling, washer uses a thermistor to control which valve opens.

Example: program calls for 140F water, this signals control to open hot valve only until the thermistor temperature is satisfied. At that time the hot fill valve closes and the cold valve opens. The washer will continue fill by alternating hot and cold valves until level and temperature is reached.

This means that only the hot valve or cold valve is open at any given time never at same time.

**Thermister;** is a probe located under washer outer drum at its lowest point just left of center, where it will allow contact with water entering washer drum. The temperature of the water is sent from thermister to washer control and in turn the control activates fill valve required to produce programmed temperature of wash bath.

At this point the washer's control signals the VFD regarding speeds and rotations. Control times out, allowing washer to drain and start next sequence of programming until final phase at which time the unit has final draining and extraction starts. After extraction is completed washer drum rotates to a stop allowing for door to unlock ending programmed cycle.

### **Stop modes**

- **End of cycle;** when programmed cycle is finished the display shows “**End**” with door open light on is considered normal
- **Interrupting a program;** during a cycle operation the stop can be activated at any time. Pressing the “Stop” key and holding for 3 seconds, signals the control to turn off all power to washers outputs allowing drain to open, door unlock time count down and all other cycle functions to halt. Once control times out and door open light shows it is possible to open door. With this scenario, if the door is opened the customer will lose vend. If customer leaves door closed and presses the program number that they were using the door will relock and cycle will resume at the beginning of the phase in which stop was pressed and complete cycle.

**Note: All controls using software 31/65 and later has a 3 second delay when pressing stop key, indicating key has to be pressed and held in for 3 seconds to activate.**

- **Interruption of power supply;** In case of a power failure to building or individual unit, the micro no longer controls the door lock. All locks have a thermal device that hold door lock in lock position. It can take up to three minutes for this device to cool down to a point before the customer or person can open door.

**Note: If at some time the washer cycle finishes and the door fails to unlock, you can turn off power to washer and wait for 3-5 minutes, then push in on the door then pull to open. After door is opened you can restore power.**

## **Introduction and Use (Logi control)**

This guide is intended to inform owner/operator of operation and basic equipment set up for Logi controlled washing machines.

On Premise Logi control for EH030, 040, 060, 070, 080 soft mount units with software version 25 or higher plus REM025 all versions of software.

LOGI CONTROL control panel

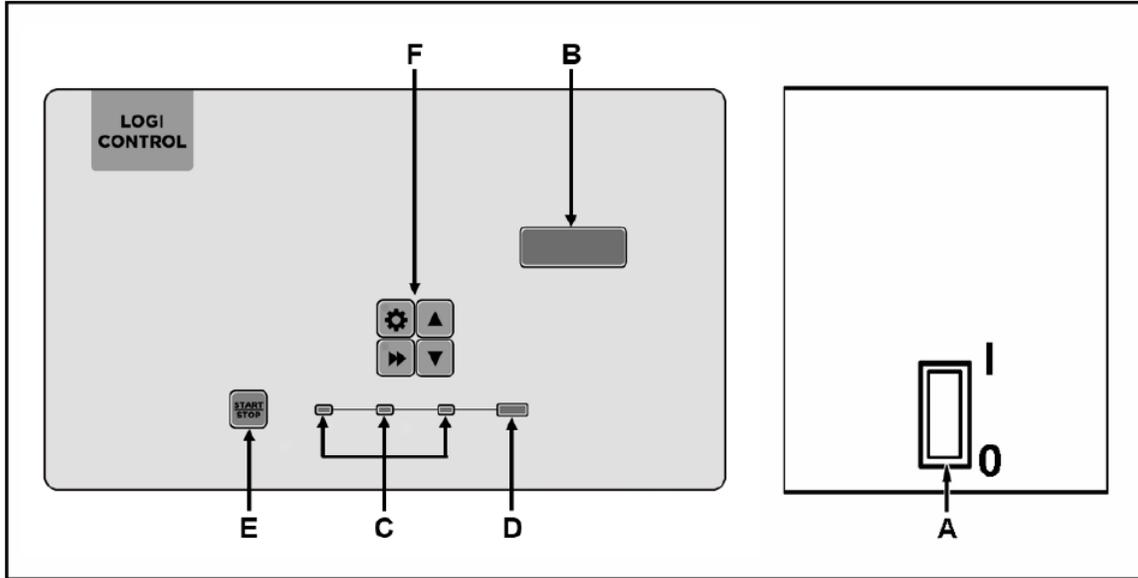


Fig. 4.1

The next chart explains the control panel and its use, each key has special functions and use.

CONTROL PANEL		
A		ON switch
B		Display
C		LEDs indicating the phase of the program in progress
D		LED indicating end of cycle
E		Starting and stopping a program
F		Access to the ADVANCED USE MODE Start program delay (option)
		Modification of the program in progress
		Selection and movement keys
		

It is important that the owner/operator understand as much as possible during the training startup of the new equipment. Use the control panel above to explain key functions and display segments.

### Characteristics of the control

- Ease of use microprocessor control
- Ability of individual program modification
- Eight different programs with capacity of 9 complete wash phase contents
- Audit of programs usage
- Temperature control achieved by hot and cold valve operation to within 3-5f degree differential
- Six separate water level settings
- Program advance feature
- Diagnostic “TesT” feature for troubleshooting washer faults

### Basic Logi control programs

The standard programs are listed below, these programs can be modified through the **Advanced Use** mode Located in “**Operations Instruction Manual**” Cod. 523340 Rev. 10 or later.

See the definition of the functions and values programmable in each phase in the following sections.

PHASE	EXECUTION	LEVEL	TEMP.	DISP.	ROTATION	ROTATION TIME	COOL DOWN	PAUSE	EXTRACT	EXTRACT TIME
	Ph	L	C / F	d	r	rt	c	rh	E	Et
1	Y/N	1...4	0 ... 90 32 ... 194	0, 1...4	1...3	1...12	n.p.	n.p.	0 / 1	n.p.
2	Y/N	1...4	0 ... 90 32 ... 194	0, 1...4	1...3	1...12	n.p.	n.p.	0 / 1	n.p.
3	Y/N	1...4	0 ... 90 32 ... 194	0, 1...4	1...3	1...12	n.p.	n.p.	0...3	n.p. 2...4
4	Y	1...4	0 ... 90 32 ... 194	0, 1...4	1...3	1...20	0 / 1	n.p.	0...2	n.p. 2...4
5	Y/N	1...4	0 ... 60 32 ... 140	0, 1...4	1...3	1...12	n.p.	n.p.	1...3	n.p. 2...4
6	Y/N	1...4	n.p.	0, 1...4	1...3	1...12	n.p.	n.p.	1...3	n.p. 2...4
7	Y/N	1...4	n.p.	0, 1...4	1...3	1...12	n.p.	n.p.	1...3	n.p. 2...4
8	Y/N	1...4	n.p.	0, 1...4	1...3	1...12	n.p.	n.p.	1	n.p.
9	Y	1...4	0 ... 60 32 ... 140	0, 1...4	1...3	1...12	n.p.	0 / 1	1...6	n.p. 2...9

### Definition of phases

1-2-3 Soak and pre-wash

4 Main wash

5 Optional wash

6-7-8 Cold water rinses

9 Final rinse and extraction

6.4.3. USA/Canada application. EH020 model: SP-I; EH, REM: other models except REM025

Pr - 1. EXTRA HEAVY SOIL - WHITE ⌚ 49 MIN											
Ph	Ph	L	F	d	r	rt	c	rh	E	Et	
1	N	2	104	1	1	4	---	---	1	---	
2	N	2	32	0	1	2	---	---	1	---	
3	Y	2	104	1	1	6	---	---	3	2	
4	Y	2	176	2	1	12	0	---	1	---	
5	Y	2	140	3	1	6	---	---	3	2	
6	N	3	---	0	1	1	---	---	1	---	
7	Y	3	---	0	1	2	---	---	1	---	
8	Y	3	---	0	1	2	---	---	1	---	
9	Y	2	32	4	1	2	---	0	6	6	

Pr - 2. HEAVY SOIL - WHITE ⌚ 42 MIN											
Ph	Ph	L	F	d	r	rt	c	rh	E	Et	
1	N	2	104	0	1	4	---	---	1	---	
2	N	2	32	0	1	2	---	---	1	---	
3	Y	2	104	1	1	3	---	---	3	2	
4	Y	2	150	2	1	8	0	---	1	---	
5	Y	2	140	3	1	5	---	---	3	2	
6	N	3	---	0	1	1	---	---	1	---	
7	Y	3	---	0	1	2	---	---	1	---	
8	Y	3	---	0	1	2	---	---	1	---	
9	Y	2	32	4	1	3	---	0	6	6	

Pr - 3. MEDIUM SOIL - WHITE ⌚ 37 MIN											
Ph	Ph	L	F	d	r	rt	c	rh	E	Et	
1	N	2	86	0	1	4	---	---	1	---	
2	N	2	32	0	1	2	---	---	1	---	
3	N	2	86	1	1	6	---	---	3	3	
4	Y	2	140	2	1	10	0	---	1	---	
5	Y	2	140	3	1	5	---	---	3	2	
6	N	3	---	0	1	1	---	---	1	---	
7	Y	3	---	0	1	2	---	---	1	---	
8	Y	3	---	0	1	2	---	---	1	---	
9	Y	2	32	4	1	2	---	0	6	6	

Pr - 4. LIGHT SOIL - WHITE ⌚ 28 MIN											
Ph	Ph	L	F	d	r	rt	c	rh	E	Et	
1	N	2	86	0	1	4	---	---	1	---	
2	N	2	32	0	1	2	---	---	1	---	
3	N	2	86	1	1	6	---	---	3	3	
4	Y	2	140	2	1	6	0	---	1	---	
5	Y	2	140	3	1	4	---	---	3	2	
6	N	3	---	0	1	1	---	---	1	---	
7	N	3	---	0	1	1	---	---	1	---	
8	Y	3	---	0	1	2	---	---	1	---	
9	Y	2	32	4	1	2	---	0	6	6	

Pr - 5. HEAVY SOIL - COLOR ⌚ 42 MIN											
Ph	Ph	L	F	d	r	rt	c	rh	E	Et	
1	N	2	104	0	2	4	---	---	1	---	
2	N	2	32	0	2	4	---	---	1	---	
3	Y	2	104	1	1	4	---	---	3	2	
4	Y	2	140	2	1	10	0	---	1	---	
5	Y	2	70	0	1	2	---	---	3	2	
6	N	3	---	0	2	1	---	---	1	---	
7	Y	3	---	0	1	2	---	---	1	---	
8	Y	3	---	0	1	2	---	---	1	---	
9	Y	2	32	4	1	3	---	0	6	6	

Pr - 6. MEDIUM SOIL - COLOR ⌚ 36 MIN											
Ph	Ph	L	F	d	r	rt	c	rh	E	Et	
1	N	2	86	0	2	4	---	---	1	---	
2	N	2	32	0	2	2	---	---	1	---	
3	Y	2	86	1	1	4	---	---	3	2	
4	Y	2	104	2	1	8	0	---	1	---	
5	Y	2	70	0	1	2	---	---	3	2	
6	N	3	---	0	2	1	---	---	1	---	
7	N	3	---	0	2	1	---	---	1	---	
8	Y	3	---	0	1	2	---	---	1	---	
9	Y	2	32	4	1	3	---	0	6	6	

Pr - 7. SYNTHETICS ⌚ 29 MIN											
Ph	Ph	L	F	d	r	rt	c	rh	E	Et	
1	N	3	32	0	2	4	---	---	1	---	
2	N	3	32	0	2	2	---	---	1	---	
3	N	2	32	1	2	4	---	---	2	2	
4	Y	2	104	2	1	8	0	---	1	---	
5	Y	2	68	0	1	2	---	---	3	2	
6	N	3	---	0	2	1	---	---	1	---	
7	N	3	---	0	2	1	---	---	1	---	
8	Y	3	---	0	1	2	---	---	1	---	
9	Y	2	32	4	1	3	---	0	6	6	

Pr - 8. WOOL AND DELICATES ⌚ 27 MIN											
Ph	Ph	L	F	d	r	rt	c	rh	E	Et	
1	N	3	32	0	3	4	---	---	1	---	
2	N	3	32	0	3	2	---	---	1	---	
3	N	3	32	1	3	4	---	---	1	---	
4	Y	2	86	2	2	8	1	---	2	2	
5	N	2	32	0	2	2	---	---	1	---	
6	N	3	---	0	2	1	---	---	1	---	
7	Y	3	---	0	2	2	---	---	1	---	
8	Y	3	---	0	2	2	---	---	1	---	
9	Y	2	32	4	2	3	---	0	5	4	

## Machine Operation

Main reports that appear on washer display are shown in next chart;

REPORT	MEANING
<i>Pr</i> -*	Program selected. Machine ready to wash
<i>C</i> -** <i>F</i> ***	Water temperature in degrees Celsius or Fahrenheit
<i>rt</i> -*	Rotation time left
<i>c</i> -**	Cooling temperature
<i>Et</i> -*	Spin time remaining
<i>End</i>	End of program. Door unlocked
<i>door</i>	Washer with door open

## Loading the washing machine

Open the loading door and load the machine. Washer load recommendations according to type of linen to be washed for best results;

- a. Cotton fabrics: nominal load of approximate machine capacity
- b. Synthetic fabrics: between 80 & 90% of nominal load
- c. Delicate fabrics: between 50 & 60% of nominal load
- d. Mixed fabrics: between 80 & 90% of nominal load

Do not overload the machine; the door must be able to close easily. Overloading the machine leads to excessive strain on machine operation.

## Using the dispenser

As a precaution, when using liquid detergents, it is recommended that the detergent be added just prior to starting the wash cycle.

	Powdered detergent for pre-wash	Dispensing compartment 1 (powder)
	Powdered detergent for wash	Dispensing compartment 2 (powder)
	Liquid bleach (chlorine, bleach, etc.)	Dispensing compartment 3 (liquid)
	Liquid softener / neutraliser	Dispensing compartment 4 (liquid)

In fig. 4.3 we see the front loading dispenser system used only in EH020 models with a pump drain system. In fig.4.4 we show the top mounted dispenser system used on all other models.



IN ORDER TO OPERATE CORRECTLY AND TO PREVENT POSSIBLE DAMAGE AND SPLASHING, THE DISPENSER DRAWER MUST ALWAYS REMAIN CLOSED, EXCEPT WHEN ADDING PRODUCTS.

Fill the compartments with the corresponding products, according to these symbols:

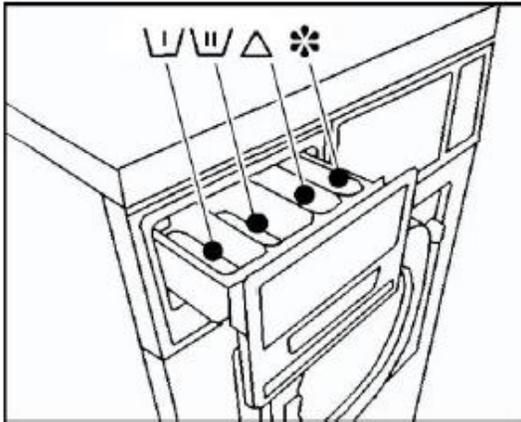


Fig. 4.3

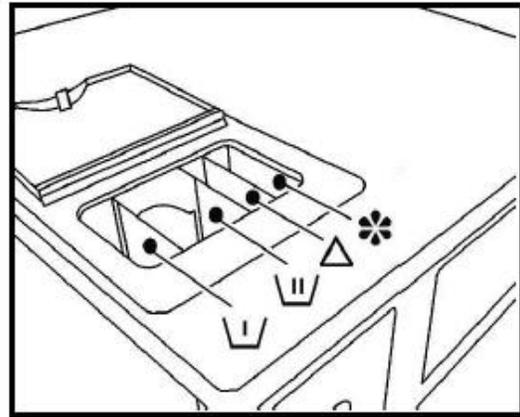


Fig. 4.4

### Starting a program Logi Control

- Close loading door, **PR \*\*** report on display(indicating last program run)
- Place laundry products into dispenser
- Select desired program using up arrow or down arrow keys
- Press start key; the display will show a temperature value (**f \*\*\***) indicates main bath temperature of selected program. Using the up ↑ arrow or down ↓ arrow it is possible to modify before starting cycle.
- Press start key again to confirm temperature and start wash program.

Sequence of starting a program is the same on all EH030, EH040 & REM025, RMG033, 040 and 055 model washers with normally open door locks. Models EH060, 070, 080 and RMG070 use normally closed door locks.

Start signal activated by operator with press of start key, signal is sent to door lock to start locking process and drain valve causing valve to close.

**Door lock normally open;** after the lock has received a start signal, a 30 second delay time is started, during this time the drum rotation and water inlet operate at short impulses and door remains unlocked. Anytime during this period, the user can open and close the door up until it locks. At the end of the 30 seconds the door will lock and cycle time starts.

**Door lock normally closed;** after lock has received a start signal the door locks within a moment and cycle starts. Door remains locked until a signal is sent from contr50l to unlock.

**Drain valve:** drain valve closes moment signal received and remains closed till the end of programmed phase.

**Water valves;** as soon as door lock signals to micro that door is locked it powers the water valves. These valves work independently of each other meaning when cold fill valve has power the hot fill valve does not and vice versa, when hot fill valve has power the cold does not.

Example: The program calls for 140F water, this signals control to open hot valve only until the thermistor temperature is satisfied. At that time the hot fill valve closes and the cold valve opens. The washer will continue fill by alternating hot and cold valves until level and temperature is reached.

This means that only the hot valve or cold valve is open at any given time, never at same time.

**Thermister;** is a probe located under washer outer drum at its lowest point, just left of center, where it will allow contact with water entering washer drum. The temperature of the water is sent from thermister to washer control and in turn the control activates fill valve required to produce programmed temperature of wash bath.

#### **Unbalance switch – EH soft mount models only**

During washer operation the control monitors the drum movement as a safety precaution. At any point during the wash or spin action of the drum and the drum has excessive movement it can activate the unbalance switch causing the load to redistribute and then retry operations. If switch activates 3 times the cycle will end and display will show “**End – Bal**”

#### **Stop modes**

- **End of cycle;** when programmed cycle is finished the display shows “**End**” with door open light on is considered normal
- **Interrupting a program;** during a cycle operation the stop can be activated at any time. Pressing the “Stop” key signals the control to turn off all power to washers outputs allowing drain to open, door unlock time count down and all other cycle functions to halt. Once the control times out and door is opened cycle is terminated, if the door is not opened then press start key and cycle will resume at the beginning of phase when stop key was pressed.
- **Emergency stop;** pressing the E-Stop interrupts the washer operation similar to interrupting the program. After a delay of approximately 3 minutes the door unlocks.

**Note: Be sure to open loading door prior to restoring power or door will relock as soon as power is restored.**

#### **Other stopping modes**

- Turn off power at I/O switch on front of control panel
- Turn off power at switch disconnecter located on left rear of unit
- Turn off power at the power supply source (wall disconnect or breaker panel)

## Introduction and Use (Logi Pro control)

This guide is intended to inform owner/operator of operation and basic equipment set up for Logi Pro controlled washing machines.

**On Premise Logi Pro control for EH020, EM-REM025, EM-MG-RMG033, 040, 055 and 070**

### 4.2. LOGI PRO CONTROL control panel

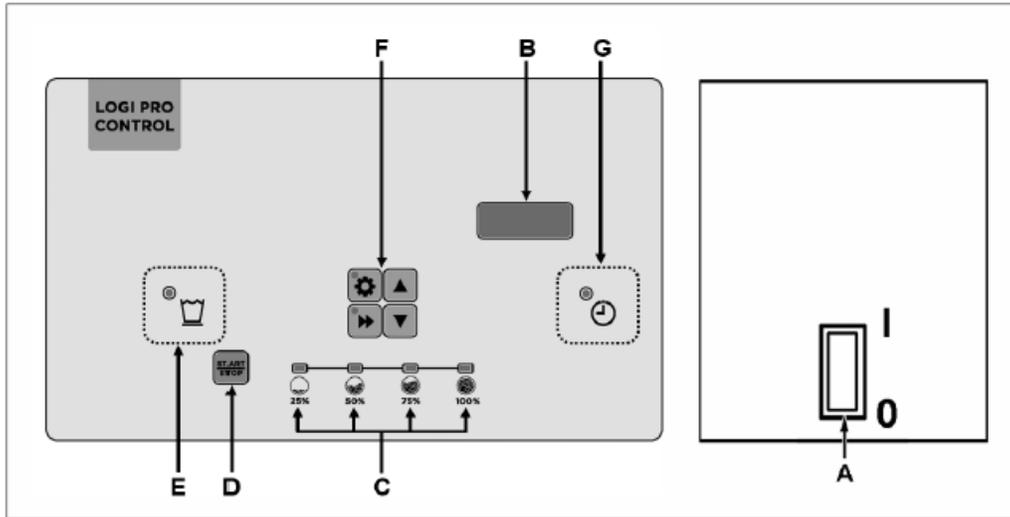


Fig. 4.2

The next chart explains the control panel and its use, each key has special functions.

CONTROL PANEL		
A		ON switch
B		Display
C		Load selection indicator LEDs
D		Starting and stopping a program
E		Access to the ADVANCED USE MODE Start program delay (option)
		Modification of the program in progress
		Selection and movement keys
		
F		Rinse hold function activated
G		Start delayed program

It is important that the owner/operator understands as much as possible during the training startup of the new equipment. Use the control panel above to explain key functions and display segments.

**Characteristics of the control**

- Ease of use
- Ability of individual program modification
- Eight pre-set programs with up to 17 additional programs available
- Audit of programs usage
- Temperature control achieved by hot and cold valve operation to within 3-5f
- Six separate water level settings
- Program advance feature
- Delayed start feature
- Diagnostic “TesT” feature for troubleshooting washer faults

**Basic Logi Pro pre-set programs**

The preset programs are listed below, these programs can be modified through the “Advanced” use mode. Consult “Operations Instruction Manual” Cod. 523340 Rev. 10 or later.

**Modifying a program**

The Logi Pro control has full program capability in all phases with exception of phase 11 which cannot be deactivated, this makes this control unique when compared to the standard Logi control.

**8.5.1. Programming vectors**

PHASE	Ph	L	C / F	1d	dt	2d	dt	r	rt	c	rh	E	Et
1...10	Y / N	0...6	0 ... 90 32 ... 194	0...4	1...99	0...4	1...99	no, Lo, Md, Hi	0...20	0 / 1	0 / 1	0 / 1...6	n.p. 2...9
11	Y	0...6	0 ... 90 32 ... 194	0...4	1...99	0...4	1...99	no, Lo, Md, Hi	0...20	0 / 1	0 / 1	1...6	n.p. 2...9

Definition of phases;

PH – phase number Y – phase active, N – phase not active

L – Bath level 1 thru 6 standard L3 wash bath, L5 rinse bath

C/F – Programmed water temperature of phase

1d – chemical injection 0-4, dt – signal time

2d – chemical injection 0-4, dt – signal time

R – Rotation type no, lo-5sec on 25 off, Md-15 on 15off, Hi-25 on 5 off

Rt – phase run time in minutes 0 thru 20

C – Synthetic cool down

Rh – rinse hold

E – drain and speed, 0 thru 6

ET – extract time in minutes 2-9

USA/CANADA application. EH020, REM025, RMG models

Pr - 1. EXTRA HEAVY SOIL - WHITE														⌚ 49 MIN	
Ph	Y/N	L	C	F	1d	dt	2d	dt	r	rt	c	rh	E	Et	
1	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
2	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
3	N	3	40	104	1	30	0	---	Hi	4	0	0	1	---	
4	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
5	Y	3	40	104	1	30	0	---	Hi	6	0	0	3	2	
6	Y	3	80	176	2	30	0	---	Hi	12	0	0	1	---	
7	Y	3	60	140	3	30	0	---	Hi	6	0	0	3	2	
8	N	4	0	32	0	---	0	---	Hi	1	0	0	1	---	
9	Y	4	0	32	0	---	0	---	Hi	2	0	0	1	---	
10	Y	4	0	32	0	---	0	---	Hi	2	0	0	1	---	
11	Y	3	0	32	4	30	0	---	Hi	2	0	0	6 <sup>(*)</sup>	6	

Pr - 2. HEAVY SOIL - WHITE														⌚ 42 MIN	
Ph	Y/N	L	C	F	1d	dt	2d	dt	r	rt	c	rh	E	Et	
1	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
2	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
3	N	3	40	104	0	---	0	---	Hi	4	0	0	1	---	
4	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
5	Y	3	40	104	1	30	0	---	Hi	3	0	0	3	2	
6	Y	3	66	151	2	30	0	---	Hi	8	0	0	1	---	
7	Y	3	60	140	3	30	0	---	Hi	5	0	0	3	2	
8	N	4	0	32	0	---	0	---	Hi	1	0	0	1	---	
9	Y	4	0	32	0	---	0	---	Hi	2	0	0	1	---	
10	Y	4	0	32	0	---	0	---	Hi	2	0	0	1	---	
11	Y	3	0	32	4	30	0	---	Hi	3	0	0	6 <sup>(*)</sup>	6	

Pr - 3. MEDIUM SOIL - WHITE														⌚ 37 MIN	
Ph	Y/N	L	C	F	1d	dt	2d	dt	r	rt	c	rh	E	Et	
1	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
2	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
3	N	3	30	86	0	---	0	---	Hi	4	0	0	1	---	
4	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
5	N	3	30	86	1	30	0	---	Hi	6	0	0	3	3	
6	Y	3	60	140	2	30	0	---	Hi	10	0	0	1	---	
7	Y	3	60	140	3	30	0	---	Hi	5	0	0	3	2	
8	N	4	0	32	0	---	0	---	Hi	1	0	0	1	---	
9	Y	4	0	32	0	---	0	---	Hi	2	0	0	1	---	
10	Y	4	0	32	0	---	0	---	Hi	2	0	0	1	---	
11	Y	3	0	32	4	30	0	---	Hi	2	0	0	6 <sup>(*)</sup>	6	

Pr - 4. LIGHT SOIL - WHITE														⌚ 28 MIN	
Ph	Y/N	L	C	F	1d	dt	2d	dt	r	rt	c	rh	E	Et	
1	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
2	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
3	N	3	30	86	0	---	0	---	Hi	4	0	0	1	---	
4	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
5	N	3	30	86	1	30	0	---	Hi	6	0	0	3	3	
6	Y	3	60	140	2	30	0	---	Hi	6	0	0	1	---	
7	Y	3	60	140	3	30	0	---	Hi	4	0	0	3	2	
8	N	4	0	32	0	---	0	---	Hi	1	0	0	1	---	
9	N	4	0	32	0	---	0	---	Hi	1	0	0	1	---	
10	Y	4	0	32	0	---	0	---	Hi	2	0	0	1	---	
11	Y	3	0	32	4	30	0	---	Hi	2	0	0	6 <sup>(*)</sup>	6	

Pr - 5. HEAVY SOIL - COLOR														⌚ 42 MIN	
Ph	Y/N	L	C	F	1d	dt	2d	dt	r	rt	c	rh	E	Et	
1	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
2	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
3	N	3	40	104	0	---	0	---	Md	4	0	0	1	---	
4	N	3	0	32	0	---	0	---	Md	4	0	0	1	---	
5	Y	3	40	104	1	30	0	---	Hi	4	0	0	3	2	
6	Y	3	60	140	2	30	0	---	Hi	10	0	0	1	---	
7	Y	3	21	70	0	---	0	---	Hi	2	0	0	3	2	
8	N	4	0	32	0	---	0	---	Md	1	0	0	1	---	
9	Y	4	0	32	0	---	0	---	Hi	2	0	0	1	---	
10	Y	4	0	32	0	---	0	---	Hi	2	0	0	1	---	
11	Y	3	0	32	4	30	0	---	Hi	3	0	0	6 <sup>(1)</sup>	6	

Pr - 6. MEDIUM SOIL - COLOR														⌚ 36 MIN	
Ph	Y/N	L	C	F	1d	dt	2d	dt	r	rt	c	rh	E	Et	
1	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
2	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
3	N	3	30	86	0	---	0	---	Md	4	0	0	1	---	
4	N	3	0	32	0	---	0	---	Md	2	0	0	1	---	
5	Y	3	30	86	1	30	0	---	Hi	4	0	0	3	2	
6	Y	3	40	104	2	30	0	---	Hi	8	0	0	1	---	
7	Y	3	21	70	0	---	0	---	Hi	2	0	0	3	2	
8	N	4	0	32	0	---	0	---	Md	1	0	0	1	---	
9	N	4	0	32	0	---	0	---	Md	1	0	0	1	---	
10	Y	4	0	32	0	---	0	---	Hi	2	0	0	1	---	
11	Y	3	0	32	4	30	0	---	Hi	3	0	0	6 <sup>(1)</sup>	6	

Pr - 7. SYNTHETICS														⌚ 29 MIN	
Ph	Y/N	L	C	F	1d	dt	2d	dt	r	rt	c	rh	E	Et	
1	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
2	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
3	N	4	0	32	0	---	0	---	Md	4	0	0	1	---	
4	N	4	0	32	0	---	0	---	Md	2	0	0	1	---	
5	N	3	0	32	1	30	0	---	Md	4	0	0	2	2	
6	Y	3	40	104	2	30	0	---	Hi	8	0	0	1	---	
7	Y	3	21	70	0	---	0	---	Hi	2	0	0	3	2	
8	N	4	0	32	0	---	0	---	Md	1	0	0	1	---	
9	N	4	0	32	0	---	0	---	Md	1	0	0	1	---	
10	Y	4	0	32	0	---	0	---	Hi	2	0	0	1	---	
11	Y	3	0	32	4	30	0	---	Hi	3	0	0	6 <sup>(1)</sup>	6	

Pr - 8. WOOL AND DELICATES														⌚ 27 MIN	
Ph	Y/N	L	C	F	1d	dt	2d	dt	r	rt	c	rh	E	Et	
1	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
2	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
3	N	4	0	32	0	---	0	---	Lo	4	0	0	1	---	
4	N	4	0	32	0	---	0	---	Lo	2	0	0	1	---	
5	N	4	0	32	1	30	0	---	Lo	4	0	0	1	---	
6	Y	3	30	86	2	30	0	---	Md	8	0	0	2	2	
7	N	3	0	32	0	---	0	---	Md	2	0	0	1	---	
8	N	4	0	32	0	---	0	---	Md	1	0	0	1	---	
9	Y	4	0	32	0	---	0	---	Md	2	0	0	1	---	
10	Y	4	0	32	0	---	0	---	Md	2	0	0	1	---	
11	Y	3	0	32	4	30	0	---	Md	3	0	0	5	4	

Pr - 9 ... 25. SINGLE CONTENT PROGRAMS														⌚ 5 MIN	
Ph	Y/N	L	C	F	1d	dt	2d	dt	r	rt	c	rh	E	Et	
1...10	N	3	0	32	0	---	0	---	Hi	2	0	0	1	---	
11	Y	2	0	32	0	0	0	---	Hi	2	0	0	1	---	

### Main reports that appear on the display

The reports on display can be viewed during normal cycle operation as shown below, it is also possible to show only time remaining if desired. Setting can be altered. See sec 8. **Logi Pro Advanced use Mode** of Operations manual.

REPORT	MEANING
<i>LOAD</i>	Determination of load volume.
<i>Pr*</i>	Program selected. Machine ready to wash
<i>A-1</i>	Cold water inlet
<i>A-2</i>	Hot water inlet
<i>d*</i>	First dosing
<i>C**</i> <i>F***</i>	Water temperature in degrees Celsius or Fahrenheit
<i>rt*</i>	Rotation time left
<i>c**</i>	Cooling temperature
<i>PUSH</i> <i>STAR</i>	Program halt using the rh function
<i>Et*</i>	Spin time remaining
<i>End</i>	End of program. Door unlocked
<i>door</i>	Washer with door open

### Loading the washing machine

Open the loading door and load the machine. Washer load recommendations according to type of linen to be washed for best results.

- a. Cotton fabrics: nominal load of approximate machine capacity
- b. Synthetic fabrics: between 80 & 90% of nominal load
- c. Delicate fabrics: between 50 & 60% of nominal load
- d. Mixed fabrics: 80 & 90% of nominal load

Do not overload the machine, the door must be able to close easily. Overloading the machine leads to excessive strain on machine operation.

### Using the dispense

As a precaution, when using liquid detergents, it is recommended that the detergent be added just prior to starting the wash cycle.

	Powdered detergent for pre-wash	Dispensing compartment 1 (powder)
	Powdered detergent for wash	Dispensing compartment 2 (powder)
	Liquid bleach (chlorine, bleach, etc.)	Dispensing compartment 3 (liquid)
	Liquid softener / neutraliser	Dispensing compartment 4 (liquid)

In fig. 4.3 we see the front loading dispenser system used only in the EH020 models with a pump drain system. In fig. 4.4 we show the top mounted dispenser system used on all other models with the Logi Pro control.



**IN ORDER TO OPERATE CORRECTLY AND TO PREVENT POSSIBLE DAMAGE AND SPLASHING, THE DISPENSER DRAWER MUST ALWAYS REMAIN CLOSED, EXCEPT WHEN ADDING PRODUCTS.**

Fill the compartments with the corresponding products, according to these symbols:

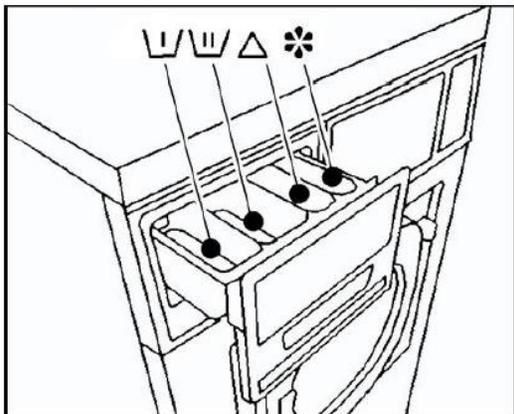


Fig. 4.3

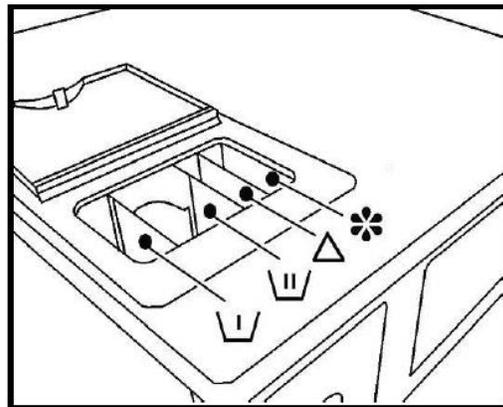


Fig. 4.4

### Starting a program Logi Pro Control

- Close loading door, **PR\*\*** report on display(indicating last program run)
- Place laundry products into dispenser
- Select desired program using up arrow or down arrow keys
- Press start key; the display will show a temperature value (**f\*\*\***)

**Note: This indicates main bath temperature of selected program. If operator wishes to change the programmed temperature it is possible to do so during this operation by pressing the up arrow or down arrow modifying setting.**

- To continue press start key again to confirm temperature and start the wash program.

Sequence of starting a program will vary depending on door lock type normally open on models EH020, REM025, RMG033, 040 and 055. The RMG070 uses a normally closed door lock

Start signal activated by operator with press of start key, signal is sent to door lock starting locking process and drain valve causing valve to close.

**Door lock normally open;** after the lock has received a start signal, a 30 second delay time is started. During this time the drum rotation and water inlet operate at short impulses and door remains unlocked. Anytime during this period, the user can open and close door up until it locks. At the end of the 30 seconds the door will lock and cycle time starts.

**Door lock normally closed;** after lock has received a start signal the door locks within a moment and cycle starts. Door remains locked until a signal is sent from control to unlock.

**Drain valve;** drain valve closes the moment signal received and remains closed till the end of programmed phase.

**Water valves;** as soon as door lock signals to control that the door is locked it powers the water valves. These valves work independently of each other meaning when cold fill valve has power the hot fill valve does not and vice versa, when hot fill valve has power the cold does not.

**Example:** The program calls for 140f water, this signals control to open hot valve only until the thermister temperature is satisfied. At that time the hot fill valve closes and the cold valve opens. The washer will continue fill by alternating hot and cold valves until level and temperature is reached.

This means that only the hot valve or cold valve is open at any given time never, at same time.

**Thermister;** is a probe located under washer outer drum at its lowest point, just left of center, where it will allow contact with water entering the washer drum. The temperature of the water is sent from thermister to washer control and in turn the control activates fill valve required to produce programmed temperature of wash bath.

#### **Unbalance switch – EH soft mount models only**

During washer operation the control monitors the drum movement as a safety precaution. At any point during the wash or spin action of the drum and the drum has excessive movement it can activate the unbalance switch causing the load to redistribute and then retry operations. If the switch activates 3 times the cycle will end and display will show “**End – Bal**”.

#### **Stop modes**

- **End of cycle;** when programmed cycle is finished the display will show “End” with door open light on is considered normal

- **Interrupting a program;** during a cycle operation the stop can be activated at any time. Pressing the “Stop” key signals the control to turn off all power to washers outputs allowing drain to open, door unlock time count down and all other cycle functions to halt. Once the control times out and door is opened cycle is terminated, if the door is not opened then press the start key and cycle will resume at the beginning of phase when stop key was pressed.
- **Emergency stop;** pressing the E-Stop interrupts the washer operation similar to interrupting the program. After a delay of approximately 3 minutes the door unlocks.

**Note: Be sure to open loading door prior to restoring power or door will relock as soon as power is restored.**

#### **Other stopping modes**

- Turn off power at I/O switch on front of control panel
- Turn off power at switch disconnecter located on rear left of unit
- Turn off power at power supply source (wall disconnect or breaker panel)